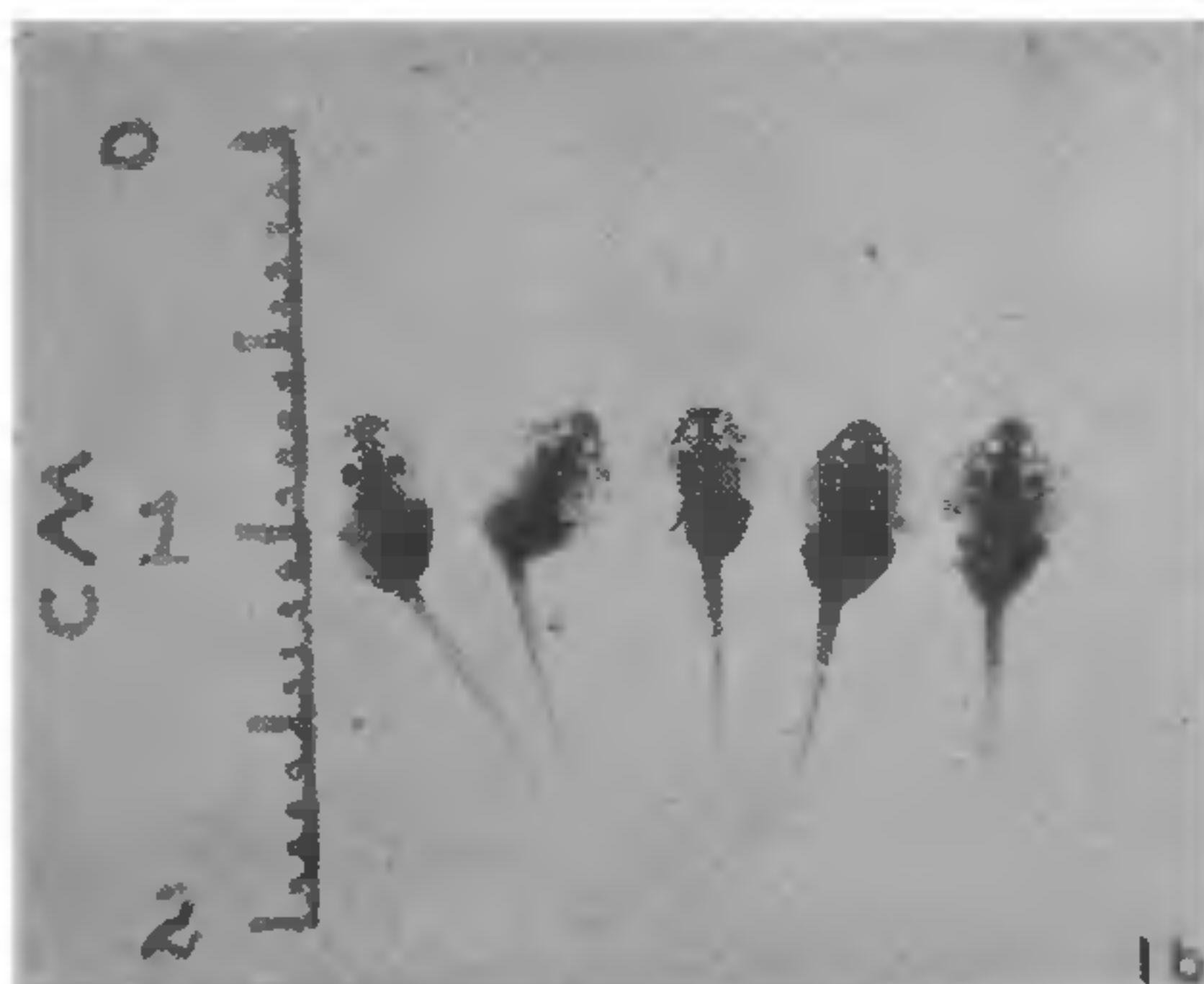
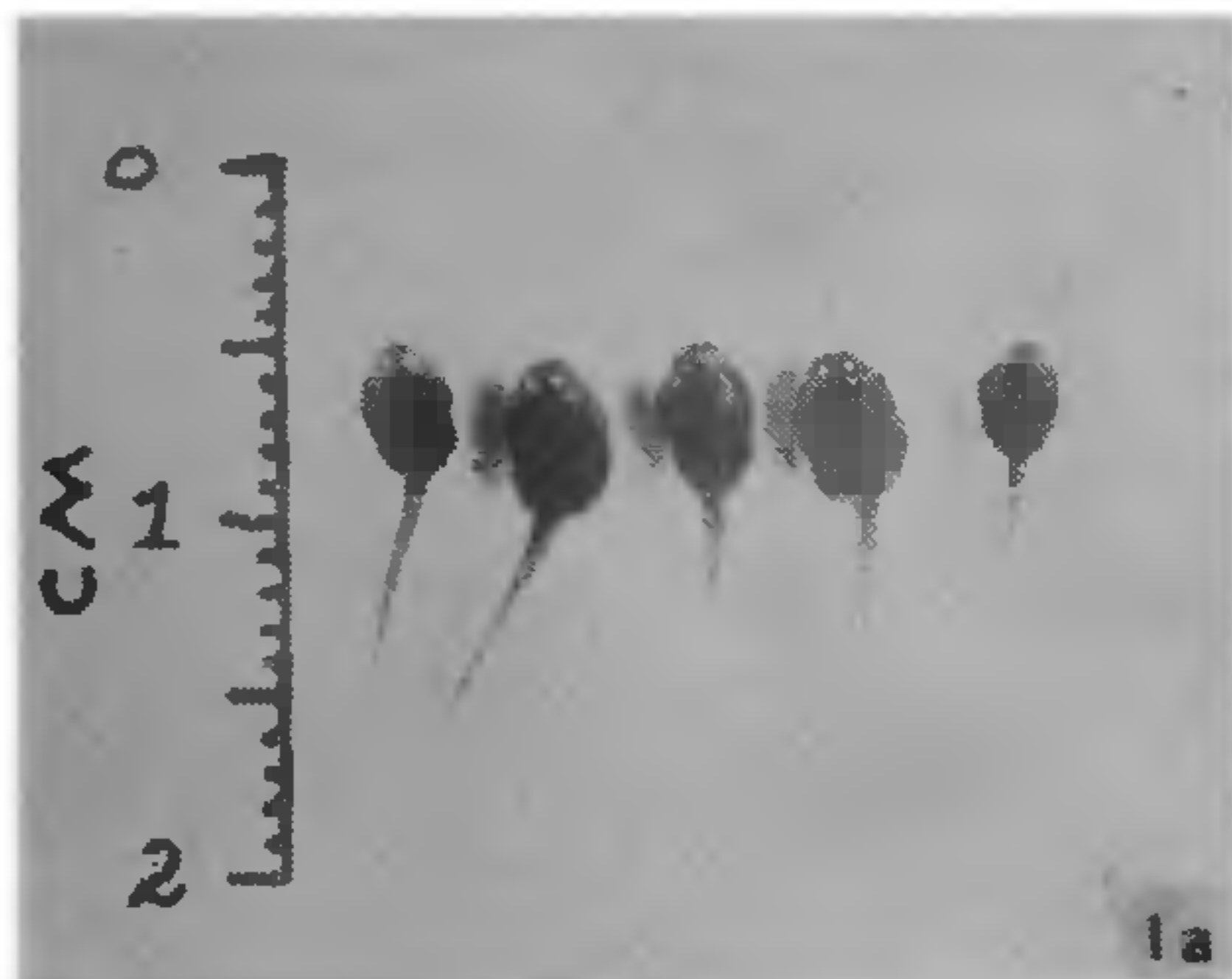


of mucas which was found oozing out from the cloaca, spiracle and mouth (Fig. 2) but this did not occur in any of the acetate treated larvae.



FIGS. 1a-c. Tadpoles reared for 8 days in (a) water (controls) and in 20 I.U./ml solutions of (b) vitamin A palmitate and (c) vitamin A acetate from 4 days after hatching.



FIG. 2. Mucus emerging from the mouth of tadpoles treated with 30 I.U./ml vitamin A palmitate.

The excessive mucus production in palmitate larvae must have been due to hyperplasia of the mucosal cells of the gastro-intestinal tract caused by the excess of vitamin A as has also been reported for *Xenopus* larvae fed vitamin A alcohol or acid¹. That this did not happen in the larvae given acetate may be attributed to the greater toxicity of this form which, even in small amounts, perhaps killed the cells rather than causing mucous hyperplasia. Vitamin A acetate has been reported to inhibit mucus secretion from even the normal mucoid epithelia in organ culture⁴.

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VARIABLE SEX RATIO IN SOME HIGH ALTITUDE LIZARDS FROM KASHMIR

AMONG the lizards in general, a normal 1:1 sex ratio has been reported^{1,2}. But the fluctuations with regard to this ratio have also been pointed out in some species^{3,4}. The population structure of *Agama tuberculata* (oviparous) and *Lygosoma himalayana* (ovoviviparous); the two commonly occurring high altitude lizards in Kashmir has been studied.

Live specimens of both sexes of the species were collected from their habitats in the valley of Srinagar (*A. tuberculata*, elevation of 1750-1900 m and *L.*

TABLE I
Incidence of sex ratio in *A. tuberculata* and *L. himalayanum*

Month	<i>Agama tuberculata</i>		<i>Lygosoma himalayanum</i>	
	1972/73	1973/74	1972/73	1973/74
April	1.14 ± 0.24	0.84 ± 0.21	1.33 ± 0.22	1.25 ± 0.26
May	1.38 ± 0.23	1.09 ± 0.23	1.33 ± 0.23	1.75 ± 0.28
June	1.44 ± 0.22	1.20 ± 0.23	0.86 ± 0.21	1.25 ± 0.28
July	0.93 ± 0.22	1.00 ± 0.24	0.80 ± 0.24	1.38 ± 0.30
August	1.72 ± 0.25	1.60 ± 0.23	1.25 ± 0.24	0.95 ± 0.24
September	1.66 ± 0.25	0.87 ± 0.21	1.29 ± 0.24	0.87 ± 0.24
October	1.25 ± 0.24	1.14 ± 0.25	1.61 ± 0.26	1.60 ± 0.27
November	1.22 ± 0.23	1.30 ± 0.22	1.28 ± 0.26	1.19 ± 0.25
December	1.28 ± 0.23	1.31 ± 0.23
AV. SD = ± 0.23 Av. SD = ± 0.22 Av. SD = ± 0.24 Av. SD = ± 0.26				

himalayanum, elevation of 2280–2590 m.). Five batches of ten lizards each were taken each month, excluding the months of hibernation, December to April, from 1972 to 1974. The standard deviation (SD) and coefficient of variation (cv) were calculated.

While *A. tuberculata* is a rock loving lizard; *L. himalayanum* dwells in the grassy uplands and alpine meadows, where they are seen from late April to November end, when the first snowfall starts.

The data of sex ratio of the species are presented in Table I. The overall sex ratio of male : female was 1.4:1 (SD ± 0.22) in *A. tuberculata* and 1.19:1 (SD ± 0.25) in *L. himalayanum*, as against an expected sex ratio of 1:1^{1,2}. The cause of the deviation from the expected ratio in our catches could not be ascertained nor does such a deviation appear to be uncommon in lizards^{4,5}.

The present finding, about the outnumbering of the females by males got a further support in having a small coefficient of variation (17.1 and 19.1 in *A. tuberculata* and 19.7 and 21.0 in *L. himalayanum*); thereby showing the consistency, uniformity and stability of the variation.

On the whole the deviation in the sex ratio in *A. tuberculata* seems to be of reverse order when compared to *Calotes numericola*⁴, wherein females are reported to be far more numerous than males. Church⁶ explains this difference as due to the general alertness and quickness of males in escaping capture, although his own subsequent observation of these lizards from a different area, as also those of Suba Rao *et al.*⁴ show that more males are captured than females

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ON THE OCCURRENCE OF LYMPHOCYSTIS IN *ANABAS TESTUDINEUS* (BLOCH)

DURING the course of cage culture experiments of air-breathing fishes in floating nylon net cages installed in a sewage-fed pond situated in Darbhanga township (26.12 N, 85.53 E), a single specimen of *Anabas testudineus* developed peculiar proliferous growths of binding tissue on the fins as well as on the body proper. The most heavily affected part was the tip of the fins, particularly the caudal (Fig. 1). The infected specimen was a male and measured 130 mm in total length and 64 g in total weight. The growth of tissues in the infected portions looked like specks of cauliflower. From the characteristic features, the disease appeared to be Lymphocystis.